Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147

COMMENTS OF ALCATEL USA, INC.

I. Introduction

Pursuant to §1.415 of the Federal Communications Commission's ("Commission") rules, Alcatel hereby submits comments to the Commission's Notice of Proposed Rulemaking ("NPRM") in the above entitled dockets.[1] Alcatel is a wholly-owned subsidiary of Alcatel S.A., a manufacturer of telecommunications and Internet equipment headquartered in France. Globally, the Alcatel group is a leader in digital subscriber line equipment, terrestrial and submarine optical networks, satellites, public switching, fixed wireless access, and intelligent networks. Alcatel operates in 130

[1] *Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Service Offering Advanced Telecommunications Capability*, CC

countries, had sales over $25 billion in 2001, and has over 90,000 employees throughout the world. The U.S. market accounts for 20% of Alcatel's sales, which includes the ASAM Digital Subscriber Line Access Multiplexers ("DSLAMs") and LiteSpan® Next Generation Digital Loop Carrier ("NGDLC") systems, the products responsible for its market leading position in U.S. broadband access.[2]

Alcatel supports unbundling policies that advocate innovative, facilities-based investment, by incumbent and competitive telecommunications carriers. These comments will petition the Commission to reconsider previously established factors as well as include additional criteria when determining whether an incumbent local exchange carrier's ("ILEC") network element should be unbundled, such as whether the element is deployed primarily to provide information or advanced services, whether unbundling the network element will result in increased or decreased investment, and whether sufficient competition currently exists to negate the need for certain network elements to be unbundled.

II. 1999 UNE Remand Order

The Commission's unbundling rules for ILECs are dictated, primarily, by Section 251 of the Communications Act. ILECs have a specific duty to provide, to any requesting telecommunications carriers for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any

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Docket No. 98-147, Notice of Proposed Rulemaking, FCC 01-361, 16 FCC Rcd 22781 (rel. Dec. 20, 2001) ("NPRM").

[2] On February 28, 2002, the Dell'Oro Group, a marketing research firm, reported that Alcatel continued to lead the worldwide market for digital subscriber line equipment through 2001. With a 38.2 percent share of

technically feasible point that is just, reasonable, nondiscriminatory and pursuant to the pricing requirements established under Section 252 of the Act.[3] Furthermore, this section states that in determining which network elements[4] should be made available, the Commission shall consider, at a minimum, whether access to such network elements that are proprietary in nature are necessary, and the failure to provide access to such network elements would impair the ability of the telecommunications carrier[5] seeking access to provide the service.[6]

In 1999, the Commission released the UNE Remand Order,[7] which listed those network elements that the ILEC must make available to requesting telecommunications carriers pursuant to the requirements of the Communications Act and the opinion of the U.S. Supreme Court.[8] Based on the premise that a CLEC's access to the incumbent's network elements will "…accelerate initially competitors' development of alternative networks because it will allow them to acquire sufficient customer and the necessary market information to justify the construction of new facilities," the Commission revisited and finalized its nationwide list of UNEs.[9]

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cumulative port shipments through 2001, Alcatel's DSL market share is over three times that of its nearest competitor.

[3] 47 USC §251(c)(3).

[4] The term "network element" means a facility or equipment used in the provision of a telecommunications service. 47 USC §153(29).

[5] A "telecommunications carrier" means any provider of telecommunications services. 47 USC §153(44). Telecommunications Services is defined as meaning the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used. Conversely, "information services" are a separate and distinct set of services. *See Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501, 11529-40 ("Report to Congress").

[6] 47 USC §251(d)(2).

[7] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No.96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (1999) ("UNE Remand").

[8] In this opinion, the Court held that the Commission must provide substantiation to the "necessary" and "impair" standards in 47 USC §251(d)(2) and develop a limiting standard that is "rationally related to the goals of the Act." *AT&T v. Iowa Utils. Bd*., 525 U.S. 366 (1999) ("Iowa Utils. Bd.").

[9] *UNE Remand*, at ¶112.

In determining which proprietary network elements an ILEC must make available to a requesting telecommunications carrier the Commission determined that if an ILEC can demonstrate that it has invested resources (time, material, or personnel) to develop proprietary information or network elements that are protected by patent, copyright, or trade secret law, the product of such an investment is "proprietary in nature" within the meaning of Section 251(d)(2)(A).[10] This definition excludes elements that are based on widely accepted industry document or on standards commonly used by a standards-setting body (e.g. ITU, ANSI, IEEE) or by vendors.[11] If a network element is determined to be proprietary, then it will not be unbundled unless it meets the Commission's test for "necessary," which is met only if the requesting carrier's lack of access would preclude it from providing the service it seeks to offer.[12] If the necessary threshold for a proprietary network element is satisfied, the Commission then must also determine that lack of access would "impair" the requesting carrier's ability to provide the service. This two-pronged test was established expressly based on the Commission's commitment to do nothing to discourage innovation and investment by all carriers.[13]

In determining which non-proprietary network elements must be made available to a requesting telecommunications carrier so that its ability to provide the service would not be "impaired," the Commission adopted the "materially diminished" standard.[14] To determine whether a requesting telecommunications carrier's ability to provide services would be "materially diminished" if the ILEC's network element was not available, the Commission considered five separate factors including:

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[10] *UNE Remand*, at ¶35.
[11] *UNE Remand*, at ¶36.
[12] *UNE Remand*, at ¶44.
[13] *UNE Remand*, at ¶37.

(1) the costs incurred using alternatives to the incumbent's network;
(2) delays caused by use of alternative facilities;
(3) material degradation in service quality;
(4) the ability of a requesting carrier to service customers ubiquitously using its own facilities or those acquired from third-party suppliers; and
(5) the impact that self-provisioning a network elements or obtaining it from a third-party supplier may have on network operations.[15]

In response to the *Iowa Utilities Board* decision, the Commission also considers five additional factors that promote the goals of the Act in its unbundling analysis. These factors include:

(1) the rapid introduction of competition in all markets;
(2) the promotion of facilities-based competition;
(3) the reduction of regulations as alternatives to the ILEC facilities become available;
(4) providing uniformity and predictability to new entrants and market certainty in general; and
(5) whether the unbundling obligations are administratively practical.[16]

Based on the "materially diminished" criteria and relevant objectives in the Communications Act, the Commission established in the UNE Remand Order a list of seven network elements to be unbundled and subsequently added one more element in a separate proceeding. These network elements include:

(1) Loops,[17]
(2) Subloops,[18]
(3) Network Interface Devices ("NIDs"),[19]
(4) Local Circuit and Tandem Switching[20] but not most packet switching,[21]

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[14] *UNE Remand*, at ¶51.
[15] *NPRM*, at ¶8
[16] *NPRM*, at ¶9
[17] The local loop network element is defined as a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and the loop demarcation point at an end-user customer premises, including inside wire owned by the incumbent LEC. 47 CFR §51.319(a)(1).
[18] The subloop network element is defined as any portion of the loop that is technically feasible to access at terminals in the incumbent LEC's outside plant, including remote terminals. 47 CFR §51.319(a)(2).
[19] The network interface device is defined as any means of interconnection of end-user customer premises wiring to the incumbent LECs distribution plant, such as a cross connect device used for that purpose. 47 CFR §51.319(b).
[20] Local circuit and tandem switching includes trunk and line side facilities and all of the capabilities that the switch is capable of providing. 47 CFR §51.31(c)(1). Local circuit switching is not required to be

(5) Interoffice transmission facilities,[22]
(6) Signaling networks and call related databases,[23]
(7) Operations Support Systems ("OSS"),[24] and
(8) High Frequency portion of the local loop.[25]

III. Impact of Unbundling Rules

In the UNE Remand Order, the Commission acknowledged that the use of unbundled network elements was integral to achieving Congress's objective of promoting rapid competition to all consumers in the local telecommunications market.[26] UNEs, and other competitive measures included in the 1996 Act, were necessary to provide competitive telecommunications carriers with a toehold in the local telecommunications market that was dominated by the incumbent local exchange carriers. Access to certain

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unbundled in Density Zone One in the top 50 Metropolitan Statistical Areas for requesting telecommunications carriers serving four or more voice grade lines, provided that the ILEC provides Enhanced Extended Links ("EELs"). 47 CFR §51.319(c)(2). An EEL allows requesting carriers to serve a customer by extending a customer's loop from the end office serving that customer to a different end office in which the competitor is already located. *UNE Remand*, at ¶288.

[21] An ILEC will only have to provided unbundled access to packet switching when (1) the ILEC has deployed a digital loop carrier system in which fiber optic facilities replace copper facilities in the distribution section, (2) there is no spare copper to support the requesting carrier's xDSL service, (3) the ILEC has not permitted a requesting carrier to deploy a Digital Subscriber Line Access multiplexer ("DSLAM") in the remote terminal, and (4) the ILEC has deployed packet switching for its own use. §51.319(c)(5).

[22] Interoffice transmission facilities include dedicated transport, dark fiber transport, and shared transport that provide telecommunications between wire centers and switches owned by ILECs or requesting telecommunications carriers. 47 CFR §51.319(d).

[23] Signaling networks include signaling links and signaling transfer points. 47 CFR §51.319(e)(1). Call-related databases are defined as databases that are used in signaling networks for, among other purposes, billing, collection, and transmission. *Id*., at §51.319(e)(2).

[24] Operations support system functions consist of pre-ordering, ordering, provisioning, maintenance and repair, and billing functions supported by and ILEC's database and information. 47 CFR §51.319(g).

[25] The high frequency portion of the local loop is defined as the frequency range above the voiceband on a copper loop facility that is being used to carry analog circuit-switched voiceband transmissions. 47 CFR §51.319(h)(1). Access must be provided at the central office as well as the remote terminal in the case of a digital loop carrier system. *Id.*, at §51.319(h)(6). Access to the high frequency portion of the loop is made available only if the ILEC is providing, and continues to provide, analog circuit-switched voiceband services on the loop. *Id.*, at §51.319(h)(1)(3). The Commission addressed line sharing in an order separate from the UNE Remand Order. *See Deployment of Wireline Service Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, 14 FCC Rcd 20912 (1999)("Line Sharing Order").

[26] *UNE Remand,* at ¶5.

ILEC network elements would serve only as a "transitional arrangement" until competitors could complete the construction of their own networks[27] and would accelerate the competitors' initial development of alternative networks because this access would allow them to acquire sufficient customers and the necessary market information to justify the construction of new facilities.[28]

These rules were intended to promote the development of facilities-based competition, because "…it is only through owning and operating their own facilities that competitors have control over the competitive and operational characteristics of their service, and have the incentive to invest and innovate in new technologies that will distinguish their services from those of the incumbent."[29] Eventually, the Commission hoped that an alternative "network of networks" would develop in which competitors were not reliant on the incumbents for essential inputs to their service, thus justifying deregulation of the incumbents' network.[30]

A. Facilities-based Competition Among Network Providers is Highly Desirable.

Facilities-based competition in the local telecommunications infrastructure is important for a number of reasons. First and foremost, facilities-based competition benefits consumers by providing choice and competition between various network providers. A facilities-based provider is not reliant on incumbent's facilities, delivery, and prices of these facilities. As demonstrated in the mass market for broadband access

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[27] *UNE Remand*, at ¶6.
[28] *UNE Remand,* at ¶112.
[29] *UNE Remand,* at ¶7.
[30] *UNE Remand,* at ftnt. 12 (citing *Promotion of Competitive Networks in Local Telecommunications Markets*, Notice of Proposed Rulemaking and Notice of Inquiry in WT Docket No. 99-217 and Third Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 99-141, ¶¶4, 23 (rel. July 7, 1999)).

services,[31] inter-modal, facilities-based competition among telecommunications carriers, cable television operators, satellite, and fixed and mobile wireless providers, has created a competitive environment in which no one provider controls essential or bottleneck facilities or super-competitive market shares.

Second, the competition among facilities-based networks places downward pressure on prices for consumers, leading to increased usage by consumers. This increase in traffic benefits providers throughout the network, including the computer, telecommunications equipment, and the long haul networks, which are currently experiencing an over-supply and under-demand problem.[32] Alternative facilities-based networks would also benefit long distance carriers seeking competitive exchange access providers and facilities to terminate interexchange traffic.

Third, facilities-based competition creates innovation and investment in network infrastructure, benefiting consumers and industry. Competitors that invest in proprietary facilities have an incentive to create more efficient, reliant, and innovative networks to differentiate themselves from the incumbent. This diversity of network architecture provides choice to consumers, creates research and development for these architectures, and demand for the equipment provided by manufacturers.

Fourth, competition among facilities-based networks has enormous public policy implications in the public safety arena. Use of the incumbent's network or reliance on its network elements does not alleviate the bottleneck control the incumbent has over those

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[31] *See Review of Regulatory Requirements for Incumbent LEC Broadband Service; SBC Petition for Expedited Ruling That it is Non-Dominant in its Provision of Advanced Services and for the Forebearance From Dominant Carrier Regulation of These Services*, CC Docket No. 01-337, Notice of Proposed Rulemaking, FCC 01-360, 16 FCC Rcd 22745 (rel. Dec. 20, 2001)("ILEC Broadband NPRM").

[32] The spot price for bandwidth has fallen 90 percent. Romero & Schiesel, *The Fiber Optic Fantasy Slips Away*, NY Times, Feb. 17, 2002..

elements. Such exclusivity is not only a competition concern, but it is a public safety concern since these facilities can be a "weak-link" that could cripple local communications if disabled or if use greatly exceeds planned capacity. Redundant networks that interconnect with, but are not wholly reliant upon, the incumbent's network provide alternatives and increased capacity.

Fifth, competitive and ubiquitously deployed networks capable of delivering both POTS and broadband services can benefit the nation's preparedness for additional terrorist attacks. Multiple platforms capable of delivering such services and facilities-based competition among and between these platforms can diversify the communications means of the population and strengthen the redundancies necessary in the event of another attack on the nation. For example, if a major city or geographic area was quarantined due to a biological or chemical attack, the communications infrastructure of that city or area and the its economy could be devastated. A plurality of facilities-based platforms capable of delivering both POTS and broadband services could provide the necessary communications capabilities to handle the inevitable increased demand, and these systems could also enable many of the employees in this area to continue working, thus lessening the economic impact of the quarantine.

B. Problems with Unbundling

While Alcatel agrees with the Commission that competitive access to UNEs can help initiate competition in the local telecommunications market, it is concerned that over-reliance on the ILECs' network elements retards sustainable competitive growth and precludes many of the benefits associated with facilities-based deployment, such as investment, innovation, and redundancy.

Aggressive unbundling and pricing rules can create perverse economic incentives for competitive telecommunications carriers to rely on the incumbents' network and a disincentive for the incumbent to improve on these facilities. With rights of resale and access to UNEs, a competitive provider has a number of choices on how to provide its service. Ideally, the competitive telecommunications provider will use its rights to resell the ILECs services and lease all or certain elements of the ILEC network to initially gain customers and a reliable revenue stream. Once the CLEC is established, this revenue can then be used to construct a proprietary, competitive network that will migrate customers off of the ILEC network.

However, in the past three years, competitive providers have insufficiently migrated onto their own facilities and remain overly-reliant on the ILECs' network. The Commission's latest Report on Local Telephone Competition reported that of the 17.3 million switched access lines being served by competitors, only one-third are over proprietary local loop facilities, whereas the remainder rely on resold ILEC services and UNE loops.[33] The UNE and pricing rules have created an entitlement for the competitive telecommunications providers in which it is more advantageous to rely on the incumbent's network rather than expose themselves to the financial risk associated with network construction.

Likewise, the entitlement created by overly aggressive unbundling and pricing rules impacts the network infrastructure, innovation, and investment of the incumbent as well. In order for any business to engage in high risk capital expenditures, it must

[33] *Local Telephone Competition: Status as of June 30, 2001*, Industry Analysis Division (rel. Feb. 27, 2002) ("Local Competition Report"), 1-2.

reasonably predict a return on the investment sufficient to justify the risk. In the local telecommunications market, the UNE and pricing rules have upset this balance by creating a system in which the incumbent takes the investment risk and suffers the loss exclusively when the investment does not produce sufficient returns. When the incumbent's investment in the local telecommunications infrastructure is successful, however, the incumbent must provide its competitors with mandated access to the network at TELRIC based prices, which limits the ILECs return and collectivizes the reward. ILECs recognize that under the present rules a substantial capital investment in the local telecommunications infrastructure needed to increase broadband capabilities includes all of the risk with a limited return and such and investment would be contrary to their fiduciary duty and potentially a disservice to its shareholders.

IV. The Commission Should Modify Existing Factors and Consider New Factors in its Unbundling Analysis.

In this review, the Commission should reexamine its nationwide list of UNEs and the application of TELRIC mandated prices in light of the need for increased facilities investment and broadband deployment. The Commission should maintain the factors developed in the UNE Remand Order and determine whether this criteria should be changed to provide added weight to any of these factors. Additionally, several other factors should be considered when determining the UNEs, including the Commission's obligations under Section 706 of the Act, the high penetration rates of mobile telephony and cable television subscribers, and a more granular approach to determining which network elements should be unbundled.

A. The Commission Should Reevaluate the Premise of Unbundling and Progress Thus Far.

As an initial step, the Commission should reevaluate the premise it adopted for network element unbundling in the *UNE Remand Order* and examine the progress made to the present. In Paragraph 110 of the *UNE Remand Order*, the Commission cited the legislative history of the 1996 Telecommunications Act in which the authors pronounced the fundamental goal of the Act is to promote investment and innovation by all participants in the telecommunications marketplace, and, in particular, to encourage rapid deployment of new telecommunications technologies.[34] The unbundling requirements were intended to provide requesting carriers with the elements they needed to ramp up towards facilities deployment,[35] recognizing that competitive LECs should prefer their own facilities in order to reduce their reliance on their primary competitor.[36]

Alcatel wholeheartedly agrees with the goals of increased facilities based deployment and innovation in the market place as articulated in the *UNE Remand Order*, but it urges the Commission to recognize that two key policies, increased innovation and facilities based deployment, are not being satisfactorily fulfilled. As previously mentioned, the unbundling and pricing rules have created perverse incentives in which CLECs recognize it may not be in their best interest to invest and construct competing facilities, and the ILECs cannot adequately justify the substantial risk associated with new construction and enhancements to their existing infrastructure if the potential reward must be collectivized and shared with their competitors. The Commission's review of the

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[34] *UNE Remand*, at ¶110 (citing Joint Explanatory Statement at 1).
[35] *UNE Remand,* at ¶111.
[36] *UNE Remand,* at ¶112.

list of network elements to be unbundled should begin with the premise that innovation and investment by ILECs and CLECs have not been maximized. Any changes to the criteria should be made to encourage competitors and incumbents to increase facilities-based investment, particularly the investment needed to increase broadband penetration in the U.S.

B. The Commission Should Maintain its Existing Factors to Determine Which Network Elements Are to be Unbundled, But it Should Place Increased Emphasis on Facilities-based Deployment and Market Predictability.

The Commission should maintain the five factors used to determine whether a requesting telecommunications carrier's ability to provide the intended service would be "materially diminished" if it did not have access to that network element of the ILEC, as well as the additional five factors the Commission adopted in response to the *Iowa Utilities Board* decision. However, in light of the state of facilities-based competition and continued over-reliance on the ILECs' networks in 2002, the Commission should increase the emphasis on three of these factors: (1) the promotion of facilities-based competition, (2) reduction of regulatory intervention, and (3) predictability and market certainty.

As demonstrated in the mass market for broadband access services,[37] facilities-based competition does not necessarily have to be achieved with competitors replicating the network of the incumbent provider; in fact, distinct platforms are more likely to

[37] *See ILEC Broadband NPRM,* at ¶20 (recognizing long standing Commission distinction between mass market and business markets for telecommunications services). *See also, In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-146, Third Report ("Third 706 Report"), FCC 02-33 (rel. Feb. 6, 2002) ¶ 16.

provide valuable innovation to the market. In the broadband market, inter-modal competition using telecommunications, cable television, satellite, and wireless (both fixed and mobile) platforms have created a competitive environment in which providers are not reliant on their competitor's bottleneck facilities. In the local telecommunications market, facilities-based competition can be achieved not only through a replication of the ILECs network, but through separate and distinct platforms that deliver the telecommunications services.[38] When competitors are not wholly reliant on multiple elements of the ILEC network, regulatory oversight can be reduced as competition and alternative suppliers constrain potential anticompetitive behavior of the ILEC.

Increased innovation and investment will also be furthered by an added emphasis on predictability and market certainty. As previously mentioned, capital investments in the local telecommunications market require a significant degree of risk that can be compounded by regulation. Any confusion or ambiguity in the Commission's unbundling rules will increase this risk exponentially, creating less investment, less innovation, and a slower development of alternative and broadband facilities. The Commission recognized the need for certainty in the telecommunications market when it implemented the UNE Remand Order.[39] The Commission should reexamine its UNE list and create a safe harbor of network elements that will not be subject to unbundling. This safe harbor should include networks elements used exclusively to provide new broadband services, new builds, and network overhauls.[40]

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[38] For example, the new cable modem specification of DOCSIS 2.0 will allow cable operators to provide improved IP Telephony using the cable television platform. *Third 706 Report,* at App. B, ¶17.

[39] *UNE Remand Order*, at ¶141.

[40] Discussed in detail in Section IV.C. of these Comments.

C. The Commission Should Adopt Additional Standards in its Unbundling Analysis.

1. Services-based Test and Broadband Facilities Exemption.

The Commission should adopt a threshold service-based test as suggested in Paragraph 20 of the NPRM to determine whether the requesting telecommunications carrier is seeking to use the network element for a "telecommunications service" or an "information service," which the Commission has concluded are mutually exclusive services.[41] Section 251(c)(3) of the Act states that the ILECs have a specific duty to provide to any requesting telecommunications carrier for the provision of a "telecommunications service," nondiscriminatory access to the network elements at a cost that is just and reasonable. Section 251 does not mandate access to providers outside the scope of "telecommunications service," and the Commission's rules should limit the ILECs unbundling obligations to those network elements necessary to provide telecommunications services. The Commission should clearly state that the ILECs have no obligation to provide competitors access to network elements used exclusively to provide non-telecommunications services (i.e. broadband access services) pursuant to the unbundling and pricing rules of Sections 251 and 252, respectively. Such a rule will provide the vital investment certainty needed to increase the deployment of broadband services and would further the Commission's mandate under Section 706 of the Act.

In addition and analogous to this service exemption, the Commission should adopt a facilities exemption to the ILECs' unbundling obligations for new fiber, remote terminals, and xDSL electronics deployed between the central office and the customer premises. Such an exemption would be for new facilities deployed primarily to provide

broadband access services, such as fiber to the home and Project Pronto-like facilities. CLECs would continue to maintain unbundled and collocation access to legacy copper facilities necessary to provide the local telecommunications service competition as contemplated in the Act, but the facilities exemption would relieve the ILEC from these requirements for new broadband facilities.

2. New Builds and Network Overhauls Exemption.

The Commission should adopt an added criteria that the network element unbundling and TELRIC pricing rules are inapplicable to new networks (i.e. Greenfield developments) and network overhauls. For new networks, this criteria would predictably eliminate investments in new residential or business developments, such as fiber to the home ("FTTH"), from being subject to the unbundling obligations. When constructing these new developments, ILECs and CLECs are in equal positions to compete for and construct these networks. The lack of legacy monopoly and bottleneck facilities in these new builds will spur competition and innovation among the various providers.

For network overhauls, if the ILEC has invested the resources to completely overhaul all or part of its network architecture, the CLEC should not have access rights on par with legacy facilities. For example, if an ILEC replaces an entire switch, loop, transport, or aggregation facility, such an investment should negate the CLECs rights to access the overhauled network element at TELRIC prices. By replacing the network element in the overhaul, the ILEC is not relying on a legacy facility, and a bright line test that precludes the new element from being unbundled at TELRIC rates will motivate the ILEC to make such investment. Likewise, if the CLECs are precluded from accessing the

[41] *See Report to Congress*.

overhauled element per the unbundling rules and prices, they will have an increased incentive to construct alternative networks or individual network elements.

3. The Commission Should Consider Inter-Modal Competition in its Unbundling Analysis.

When determining whether viable, competitive alternatives exist to a specific ILEC network element that would justify removal of this element from all or part of the nationwide list, the Commission should consider alternative technological platforms.[42] As demonstrated in the mass market for broadband access services, a service can be delivered to a customer through a variety of platforms. In the Commission's proceeding to determine the proper regulatory status of ILEC provisioned broadband services, the record clearly demonstrates that multiple platforms exist to provide broadband access services, including telecommunications, wireless, cable television, and satellite.[43] The Commission should examine the local telecommunications market in the same manner and determine whether an alternative technological platform exists by which a CLEC could use an element of that platform and not be "materially diminished" without access to the incumbent's facility.

In particular, the Commission should consider as part of its analysis the high and rapidly increasing mobile telephone penetration rate throughout the U.S. As of 2001, 118,397,734 million mobile telephone subscriptions existed in the United States,[44] providing alternative telephony means for these consumers. Since mobile telephony relies, in part, on the landline network operated by the ILECs, this information alone is

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[42] As defined in ¶28 of the NPRM.
[43] *See ILEC Broadband NPRM*.
[44] *CTIA's Semi-Annual Wireless Industry Survey*, The Cellular Telecommunications & Internet Association, June 2001, http://www.wow-com.com/industry/stats/surveys.

not conclusive evidence as to sufficient competition to any one network element. However, these subscription numbers can be employed together with other data to review the ILECs unbundling obligations in a more granular fashion.

Cable television also provides competitive, facilities-based telephony service in many parts of the country.[45] Several MSOs are currently offering circuit-switched cable telephony, while others are testing the feasibility of IP telephony. As of June 2001, Cox Communications provided facilities-based cable telephony service to approximately 344,000 subscribers nationwide, AT&T to more than 848,000, and Cablevision to another 12,500.[46] Telephony penetration rates by MSOs are similar to mobile telephony penetration rates in that they do not individually support the removal of any one network element from the Commission's list. Rather, this information should be used collectively with other available competitive evidence to examine whether removal or limitation of UNEs in certain geographical areas is warranted.

4. The Commission Should Align its Local Competition Report with Existing and Future Geographical Carve Outs in the UNE Report.

The Commission should align the data collected and reported in the Local Telephone Competition Report with the geographical and competitive carve outs that it established in the UNE Remand Order and that it may establish in this proceeding. In the UNE Remand Order, the Commission created a "switching carve out" in which local circuit switching was exempt from the unbundling rules in those cases where the ILEC has provided access to combinations of loop and transport, known as "EELs," and the

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[45] *See In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Eight Annual Report, Released January 14, 2002, ¶50 ("Eighth Video Competition Report").

[46] *Id.* at ¶53.

requesting carrier seeks to provide switching to end users with four or more lines within density zone one of the top 50 metropolitan statistical areas ("MSAs").[47] However, in the Local Telephone Competition Report, the Commission aggregates data concerning CLEC penetration by state and zip code. If the geographical exceptions in the Commission's unbundling order and the data in this Report are aligned by the same categories, a bright line test could be established in which certain network elements could be removed or automatically reconsidered if CLEC penetration meets a certain threshold.

5. The Commission Should Include Granular Considerations in its Unbundling Analysis.

a. The Commission Should Consider Geographical Distinctions in its Unbundling Analysis.

Due to the asymmetrical development of telecommunications competition in the nation, the Commission should consider geographical criteria in its unbundling analysis.[48] In the UNE Remand Order, the Commission took geographic considerations into account in formulating rules for determining under what circumstances ILECs did not have to unbundle switching.[49] In this proceeding, the Commission should revisit the standards established in the switching carve out and determine whether this exception should be considered beyond Density Zone One of the Top 50 MSAs. Further, the Commission should apply a similar geographical analysis to each of its network elements, recognizing that facilities-based and alternative platform competition will develop in an asymmetrical manner, most likely originating in the nation's cities then progressing to the less dense

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47 *UNE Remand*, at ¶278.
48 *NPRM*, at ¶39.
49 *See UNE Remand*, at ¶¶276-299.

areas. The Commission's most recent Local Telephone Competition Report provides compelling data that competition is most prevalent in high-density, populous areas, thus justifying switching geographical distinction. For example, 12% of nationwide zip codes have seven or more CLECs, and in the most populous states[50] at least 25% of the zip codes have seven competitive providers. The analysis should determine whether, within these zip codes or the MSAs, any network elements could be removed based upon data indicating the presence of multiple CLECs and alternative facilities that would enable requesting carriers to provide service through means other than the ILECs network.

b. The Commission Should Include Capacity and Customer Considerations in its Unbundling Analysis.

The Commission should include capacity and customer considerations in its unbundling analysis due to the disparate competition that has developed in the certain distinct market categories. In the transmission market, the Commission should investigate whether ILEC provided transport or interconnection services with facilities at or above a certain capacity are subject to more effective competition that would justify removal from the unbundling requirement. Rather than apply a variation of the rules on those transmission facilities, the Commission's rules should adopt a bright line test at a certain capacity in which transmission facilities that exceed that capacity are not subject to the Commission's unbundling rules.

The Commission should also make a distinction between UNEs requested to serve residential customers and those requested for business customers. Approximately 55% of the 17.3 million switched access lines that are served by CLECs served medium and large business, institutional, and government customers, whereas only 23% of these lines serve

[50] California, Florida, Georgia, Massachusetts, New York, and Texas.

residential customers.[51] Typically, business customers are located in densely populated areas and urban cores, which are more efficient demographics to provide facilities-based local telecommunications service and account for more revenue per user, thus justifying the construction of proprietary facilities and relief of unbundling requirements.

c. The Commission Should Install a Time Condition on Network Elements.

In its unbundling analysis, the Commission should impose a time condition on requesting carriers' access to the unbundled network elements of the ILEC. Alcatel suggests the Commission limit the requesting carriers' use of certain network elements to a date certain in the future, unless the Commission determines that sufficient alternatives are not available and competing telecommunications carriers would be "materially diminished" without the access to the UNEs. For example, in this proceeding the Commission could state that a subset of the UNEs that are not being removed from the nationwide list will be removed from the list within a number of years from the effective date of the order, unless, at that time, interested parties can demonstrate removal will significantly impair competing providers. By applying this sunset and shifting the burden to the competing providers, these providers will have an incentive to construct alternate facilities during a window of time needed to develop these facilities.

[51] *See Local Competition Report*.

V. Specific Issues Noticed for Consideration

A. The Commission Should Not Establish Unbundling Rules that Favor Certain Technologies.

The Commission should not create a rule in which the technology enabling the transmission of the telecommunications or broadband service, such as copper, fiber, or wireless, is the sole distinction that determines whether a network element must be unbundled. While administratively desirable, a bright line distinction between fiber and copper based wireline facilities that would justify relieving unbundling rules for the former and maintaining them for the latter would be overly simplistic, inefficient, and potentially costly. The ILECs maintain over two million miles of copper-based facilities in the nation's local telecommunications networks, and it is in their best interest to fully depreciate these facilities. A rule that stimulates premature replacement of the copper-based network with fiber-based facilities could artificially raise costs, which would be passed along to consumers in the form of higher rates. The Commission's unbundling rules should be "technology agnostic," permitting the marketplace to make investment decisions. Alcatel supports a rule in which any new build or overhaul of the network, regardless of underlying technology, would justify that network or network element be removed from the unbundling obligation. Additionally, facilities deployed by the ILEC to provide broadband services on the customer side of the central office, including remote terminals, xDSL electronics, and fiber, should also be exempt from the unbundling obligation.

B. The Commission Possesses the Statutory Authority to Distinguish Between Facilities that Provide Telecommunications Services and Those That Provide Information Services.

The Commission possesses the statutory authority to distinguish between network elements used to provide traditional telecommunications services, which should be subject to the unbundling obligations of Section 251, and those network elements used to provide broadband information services, which are not subject to common carrier regulations. Section 251(c)(3) clearly states that the ILEC has a duty to provide nondiscriminatory access to network elements[52] to any requesting *telecommunications carriers* for use in providing *telecommunications services*.[53] In a separate, ongoing proceeding the Commission tentatively concluded that information services are separate and distinct from telecommunications services and are not subject to the common carrier regulations in Title II of the Act, including the unbundling obligations of Section 251 and the pricing standards established under Section 252.[54]

The Commission should conclude that CLECs do not have entitled access to unbundled facilities or equipment used to exclusively provide services other than "telecommunications services" because Section 251 specifically limits these obligations to "network elements" and to requesting "telecommunications carriers." Such a determination is not only a correct interpretation of the language in the statute, but it will encourage deployment of facilities to provide information services and alleviate some of

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[52] By definition, a "network element" is a facility or equipment used in the provision of a "telecommunications service." 47 USC §153(29).

[53] 47 USC §251(c)(3).

[54] *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Universal Service Obligations of Broadband Providers*, CC Docket No. 02-33, Notice of Proposed Rulemaking (rel. Feb. 15, 2002) ("Wireline Broadband NPRM").

the regulatory disparity that is burdening the ILECs in their competition with cable television operators and other platforms in the broadband access market.[55]

Alternatively, the Commission can make such a determination based on the "materially diminish" standard originally established in the UNE Remand Order. In this proceeding, Alcatel urges the Commission to expand the criteria used to determine whether a requesting carrier will be materially diminished if access to the ILEC's network element is not mandated to include, in addition to other criteria, the Commission's statutory obligations under Section 706 of the Act. Based on this mandate to promote the availability of broadband services as well as the compelling evidence of effective inter-modal competition in the broadband access market, the Commission has more than sufficient justification to conclude there is a distinction between those facilities used to provide information, rather than telecommunications, services and network elements deployed to provide information services do not have to be unbundled.

C. The Commission Should Consider Modifying its Pricing Rules to Permit ILECs to Recover Costs Associated with Their Investment.

In addition to making changes in its analysis of which network elements should be unbundled and made available to requesting telecommunications carriers, the Commission should reconsider its TELRIC pricing rules established to determine a just and reasonable rate for the network elements.[56] The ILECs have long complained that the TELRIC pricing rules enforced by the state PUCs in determining the price of a leased network element are unjust because they establish a rate that is actually below the cost of

[55] *See* Comments of Alcatel (filed March 1, 2002) in *ILEC Broadband NPRM*.
[56] *See* 47 USC §252(d)

many elements, particularly newly enhanced or replaced network elements.[57] The Commission may, *sua sponte*, review the TELRIC pricing methodology for the network elements that are unbundled. Alternatively, the Commission could employ its forebearance authority in Section 10 of the Act[58] to relieve certain network elements from the constraints of Section 252. While the Commission cannot use its forebearance authority to disregard its unbundling requirements in Section 251(c) until fully implemented,[59] no language in the statute restricts forebearance from the Section 252 pricing requirements so long as the just and reasonable, consumer protection, and public interest elements under Section 10 are satisfied.

VI. The Commission Should Take This Opportunity to Formally Declare that NGDLC Line Cards are not Network Elements Under the Act and are not Subject to Unbundling or Collocation Obligations.

Based upon the record established in this proceeding as well as the collocation proceeding,[60] the Commission should formally conclude that the internal, proprietary components of a next generation digital loop carrier ("NGDLC"), specifically the plug-in line cards embedded in the NGDLC system, are not separate "network elements" for unbundling and collocation purposes under the Act. Further, recognizing that such line

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[57] The Supreme Court will decide, *inter alia*, whether TELRIC is an illegal taking that violates the 5th Amendment to the U.S. Constitution. See *Verizon Communications, Inc. v. Federal Communications Commission*, Nos. 00-501, 00-555, 00-587, 00-509, and 00-602. *See also* Letter from Thomas J. Tauke, Senior Vice President, *Verizon Communications, Inc*., to Michael Powell, Chairman, *Federal Communications Commission* (Nov. 6, 2001).

[58] 47 USC §160.

[59] *Id*.

[60] *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 00-297 (rel. Aug. 10, 2000). *See Also*, Comments of Alcatel USA, Inc. (filed Oct. 12, 2000) and Reply Comments of Alcatel USA, Inc. (filed Nov. 14, 2000) ("Alcatel Reply Comments in Collocation Proceeding").

card unbundling requirements are inconsistent with Section 251 and other goals in the Communications Act, the Commission should preclude the enforcement of such regulations at the state level.

A. The Introduction of Foreign Line Cards Into an NGDLC System Would Not be Functionally Practical.

Line cards are an integral component of an NGDLC and have no individual, independent functionality. Line cards are simply printed circuit boards that consist of components such as chip sets, resistors, and solder points. These components, in conjunction with the proprietary NGDLC system software, allow for the provisioning of certain service features and functions. The line cards themselves are specially designed to fit within and interact with the slots, which are hard wired to the system back plane. Any change to the proprietary line card, or the introduction of foreign line cards into the NGDLC, would necessitate a modification to the entire board component of the NGDLC as well.

Even if foreign line cards were physically altered to fit within an NGDLC, several functionality issues would remain that would render the interoperability nearly impossible. The pin designs on the foreign line cards would have to match the pin receptors in the NGDLC, which could not be achieved without a standardization of the product or disclosure of proprietary intellectual property. The software system that operates the NGDLC would have to be greatly enhanced to recognize, operate, and control the foreign line cards along with the proprietary cards. Due to the nature of the NGDLC, the system itself would be made significantly less efficient if foreign line cards

were introduced since each card controls several circuits and each of these circuits would have to be dedicated to the CLEC that implanted the foreign line card. Most likely, the CLEC will not need or have customers that need each of these circuits, thus many will go unused.

Legal and contractual issues would have to be addressed by the Commission, carriers, and manufacturers as well. NGDLCs operate under warranty, and most warranties in the industry would be voided if the system failed due to the introduction of a foreign line card. Carriers that purchase NGDLC systems from manufacturers are provided operational and other proprietary information under nondisclosure agreements that preclude disclosure of the information necessary for the CLECs to insert and operate foreign line cards.

The standardization of NGDLCs and line cards potentially necessary to justify any unbundling requirement for these systems and the implementation of foreign line cards is clearly not in the public interest. Currently, standardization applies exclusively to the external interfaces and service capabilities that the NGDLC systems support, but there is no standardization of the internal, proprietary components of the NGDLC. As noted in the collocation proceeding, the standardization of these internal components would stifle innovation and competition since manufacturers could not differentiate themselves with unique improvements to these systems.[61]

[61] *Alcatel Reply Comments in Collocation Proceeding*, at 4-5.

B. The Commission Has Ample Legal Authority to Preclude Line Card Unbundling at both the Federal and State Level.

The network element and unbundling requirements in the Communications Act provide sufficient justification to preclude NGDLC line card unbundling. First, the ILECs obligation to provide nondiscriminatory access to network elements on an unbundled basis must be "…at any technically feasible point," which the internal, proprietary components of an NGDLC clearly are not.[62] As previously mentioned, CLEC access to the internal components of the NGDLC and the introduction of foreign line cards to the system would have a number of operational problems that could result in harm to the entire system, would raise security problems associated with a competitors access to such systems, and potentially expose carriers to breach of warranty and nondisclosure agreement liability.

Even if the Commission were to determine that the internal line cards of the NGDLC system are network elements, they are proprietary in nature and any Commission unbundling mandate must satisfy both the strict scrutiny of §251(d)(2)(A) and the lesser scrutiny of §251(d)(2)(B). In the *UNE Remand Order*, the Commission clarified that a network element is "proprietary" if the ILEC can demonstrate a resource investment, that the network element is protected by patent, copyright, or trade secret law, and that it is not based on widely accepted industry document or standards.[63] Such a "proprietary" network elements is "necessary" within the meaning of §251(d)(2)(A) if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative

[62] 47 USC §251(c)(3).
[63] *UNE Remand,* at ¶36.

from a third party supplier, lack of access to that element would, as a practical, economic, and operational matter, preclude a requesting carrier from providing the services it seeks to offer. If the "necessary" standard is met, then the "impair" standard must also be satisfied in order for the network element to be unbundled and made available to requesting carriers.[64]

NGDLC internal line cards are proprietary in nature due to the innovation and resources dedicated to their construction and operability, their lack of standardization, and the copyright and patent protection afforded to the software and hardware, respectively. Lack of access to these line cards would not preclude the requesting carriers from providing the service, such as xDSL, since the carrier can lease the derived circuit from the incumbent without directly accessing these specific components.

Alternatively, even if the Commission were to subject line card unbundling to the lower "impair" standard under §251(d)(2)(B), it should conclude that the requesting carrier would not be "materially diminished" and such unbundling would conflict with the limiting standard dictated by the Supreme Court. Based upon that opinion, the Commission determined that the "..at a minimum" phrase included in §251(d)(2) limited the Commission's unbundling authority by obligating it to consider goals of the Communications Act beyond the necessary and impair standards of Section 251 when determining whether a network element should be unbundled, including the promotion of facilities based competition, the need for certainty in the market, and whether the unbundling obligation would be administratively practical. As previously mentioned, line card unbundling would stifle innovation by requiring the standardization of internal components or disclosure of intellectual property, would be impractical to administer,

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[64] *UNE Remand,* at ¶37.

would result in increased reliance on the incumbent's network, and would increase the need for regulatory oversight necessary to provide such access.

A conclusion that NGDLC line card unbundling is inconsistent with Section 251 would also allow the Commission to preclude any similar regulation of a state regulatory commission. Section 251(d)(3) prohibits the Commission from precluding the enforcement of any regulation, order, or policy of a state commission that, *inter alia*, is consistent with the requirements of §251. As interpreted by the Supreme Court, §251's "…at a minimum" clause obligates the Commission to consider additional Communications Act objectives, which the Commission concluded in the *UNE Remand Order* to include, among other goals, certainty in the market to create a predicable investment climate. State inquiries into line card unbundling are inconsistent with Section 251 and the market predictability factor described in the *UNE Remand Order* because they have a chilling effect on market certainty in the telecommunications equipment and service markets. Such inquiries cause manufacturers to delay improvements to their NGDLC systems or potentially construct inefficient systems to comply with these regulations. Likewise, such proceedings cause carriers to delay or cancel capital investment in NGDLC systems until a determination is made whether the line cards must be unbundled and how they are to be made available to requesting carriers.

VII. Conclusion

In this proceeding, the Commission should reexamine the premise and effect of the unbundled network element list established in 1999 to determine how the availability of these elements have affected facilities-based deployment in the nation, particularly those facilities necessary to provide broadband access services. The Commission's rules should emphasize the building of proprietary facilities by all market participants, reward innovation, and not enhance investment risk. Specifically, the Commission should exempt network elements requested to provide services other than "telecommunications services," as well as those facilities deployed on the customer side of the central office designed primarily for the delivery of broadband access services, including fiber, remote terminals, and xDSL electronics. Finally, the Commission should take this opportunity to conclude that the internal components of an NGDLC are not subject to unbundling requirements and preempt further consideration of this issue, at both the federal and state level.

Respectfully Submitted,

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